



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/594,586

09/28/2006

Kisaburo Noguchi

063068

5606

38834

7590

12/23/2008

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP  
1250 CONNECTICUT AVENUE, NW  
SUITE 700  
WASHINGTON, DC 20036

EXAMINER

KRYLOVA, IRINA

ART UNIT

PAPER NUMBER

4131

MAIL DATE

DELIVERY MODE

12/23/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/594,586	<b>Applicant(s)</b> NOGUCHI ET AL.	
	<b>Examiner</b> IRINA KRYLOVA	<b>Art Unit</b> 4131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/26/06; 09/28/06</u> .                                      | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION*****Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-7 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 15 and 18 of U.S. Patent No. 7,354,970.

Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-3 of the instant application are fully encompassed in the vinyl chloride compositions comprising a combination of vinyl chloride resin and a copolymer of vinyl chloride monomer and macromonomer, as cited in claims 15 and 18 of the US 7,354,970.

Art Unit: 4131

Claims 1-7 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 6 of copending Application No. 10/583,991. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 6 of the copending application, which is dependent on claim 1, recites a vinyl resin chloride composition comprising “a vinyl chloride copolymer obtained by copolymerizing vinyl chloride monomer and a macromonomer having a polymer comprising an ethylenically unsaturated monomer containing a double bond in its chain” with overlapping ratios of monomers in the copolymer, which is similar to claims 1-3 of the instant invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by **Grauer et al** in US 5,314,966.

**Grauer et al** discloses a vinyl chloride resin composition comprising polyvinyl chloride resin and a vinyl chloride graft copolymer (col. 3, lines 25-40). The graft copolymer

Art Unit: 4131

comprises a copolymer of vinyl chloride monomer with polybutyl acrylate, possibly cross-linked with allyl methacrylate (col. 2, lines 8-12; col. 3, lines 30-35). As to instant claim 3, the vinyl chloride copolymer contains 1-5% by weight of the polybutyl acrylate (col. 3, lines 30-35). As to instant claim 2, the vinyl chloride copolymer, containing 1-5% by weight of polybutyl acrylate, is used in the composition in amount 5-50% (col. 3, lines 25-30).

As to instant claims 4-7, the vinyl chloride composition can be processed by calendering, extrusion and injection molding (col. 4, lines 24-28).

Though **Grauer et al** does not specifically state the vinyl chloride copolymer comprising “macromonomer having polymer comprising ethylenically unsaturated monomer containing double bond in a main chain”, polybutyl acrylate, cited by **Grauer et al** as a graft base for copolymerization with vinyl chloride, is described in the specification of the instant invention as a macromonomer (see pages 13-14 and Example A on page 29 of the instant invention).

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by **Nakagawa et al** in JP 07-126469 (rejection is based on an English translation).

**Nakagawa et al** discloses a vinyl chloride resin composition prepared by blending a chlorinated vinyl chloride resin and a vinyl chloride copolymer produced by copolymerizing vinyl chloride monomer and a macromer having polyoxyalkylene chain with terminal ethylenically unsaturated units (Abstract). As to instant claim 3, vinyl

Art Unit: 4131

chloride copolymer contains 2-40%wt of macromer units (Abstract). As to instant claim 2, the composition comprises 1-50 parts by weight of vinyl chloride copolymer, containing 2-40% wt of macromer units, per 100 parts by weight of vinyl chloride resin (Abstract). As to instant claim 4, the composition comprises an improved moldability and is used for making building components, pipes, sheets, interior material for vehicles ([0002], [0004]).

Claims 5-7 define the product by how the product was made. Thus, claims 5-7 are product-by-process claims. For purposes of examination, product-by-process claims are not limited to the manipulation of the recited steps, only the structure implied by the steps. See MPEP 2113. In the present case, the recited steps imply a structure comprising sheets, pipes, building components produced from the vinyl chloride composition. The reference suggests such a product.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by **Kawachi et al** in WO 2004/003042 (equivalent of US 7,354,970 which is used as a translation and cited below).

**Kawachi et al** discloses a vinyl chloride resin composition comprising 50-99.9% by weight of vinyl chloride homopolymer and 0.1-50% by weight of vinylchloride copolymer (col. 4, lines 20-25). As to instant claims 2-3, the vinyl chloride copolymer comprises 80-99.95% by weight of vinyl chloride monomer and 0.05-20% by weight of macromonomer having vinyl polymer main chain (col. 3, lines 5-7; col. 3, lines 49-51).

Art Unit: 4131

As to instant claims 4-7, the polyvinyl chloride resin composition can be subjected to various moulding processes and can be formed into floor covering and wall paper in building materials, sealer in automotive materials (col. 1, lines 35-42).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Oomine et al in JP 02263810 discloses vinyl chloride copolymers produced by copolymerizing vinyl chloride and aromatic macromonomers. Azuma et al in JP 04253751 discloses a composition comprising PVC and a graft copolymer comprising a macromonomer and vinyl monomers. Higuchi et al in JP-07118352 discloses molded objects produced from a composition comprising a copolymer of vinyl chloride and a macromonomer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to IRINA KRYLOVA whose telephone number is (571)270-7349. The examiner can normally be reached on Monday-Friday 7:30am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571)272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 4131

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R. Sample/  
Supervisory Patent Examiner, Art Unit 4131

/I. K./  
Examiner, Art Unit 4131